

REMARKS

Claims 1-26 and 31- 36 are pending in the present application. Claims 17 and 26 have been amended. Claims 31-36 have been added. Claims 27-30 were previously cancelled without prejudice in response to the restriction requirement of June 28, 2002. Claim 17 was amended for the reasons discussed below. Claim 26 was amended for antecedent basis purposes. Accordingly, applicants respectfully submit that no new matter has been added. Support for the new claims 31-36 can be found in the original claims, especially original claims 1, 8-10, 11-12, and 18-23. Accordingly, applicants respectfully submit that no new matter has been added.

Applicants thank the examiner for indicating that claims 11-13, 17-24, and 26 contain allowable subject matter.

Based on the above amendments and following remarks, applicants respectfully request reconsideration of all outstanding rejections.

Claim Rejections Under 35 U.S.C. § 112, second paragraph

In the Office Action, claim 17 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants amended claim 17 to clarify the “edge region.” Accordingly, applicants respectfully request reconsideration of this rejection.

Claim Rejections Under 35 U.S.C. §§ 102(e) and 103(a)

In the Office Action, claims 1, 4, 8, and 25 were rejected under 35 U.S.C. §§ 102(e)/103(a) as being anticipated by/obvious over Schaezner (USP 6,023,378). Also, claims 1-10, 14-16 and 25 were rejected under 35 U.S.C. § 103 as being unpatentable over Tsuchiya (USP 5,859,727) taken with Osborne et al. (USP 6,407,884) and Schaezner (USP 6,023,378). Applicants respectfully traverse these rejections for the following reasons.

With respect to independent claims 1 and 25, the patent office has not shown that the cited references, taken individually, or in combination, disclose, teach, or suggest “a transparent plane-parallel protuberance corresponding to a field size of the imaging optical system” as is recited. For example, there is no indication by the patent office that either Schaenzer or Osborne explicitly or inherently teach this feature. In fact, Schaenzer does not even address this claimed feature. Moreover, Osborne teaches away from this feature at col. 5, lines 14-16, where Osborne explicitly teaches the need for a small spot. This small spot is needed in Osborne’s system in order to correctly read out the optical data. See also Osborne, col. 9, lines 41-45. Further, Tsuchiya cannot teach or suggest this feature as Tsuchiya does not teach a protuberance. Accordingly, applicants respectfully submit that Schaenzer does not anticipate claims 1 and 25 and the cited Tsuchiya/Schaenzer/Osborne combination does not render obvious the invention as recited in claims 1 and 25.

Further, applicants respectfully submit that a *prima facie* case of obviousness has not been established with respect to the Tsuchiya/Schaenzer/Osborne combination because there is no motivation provided in the prior art itself to modify Tsuchiya’s optical system with the alleged protuberances in Schaenzer/Osborne in the manner claimed. In particular, applicants respectfully disagree with the patent office’s characterization that Schaenzer/Osborne are “similar” systems to either Tsuchiya or applicants’ invention. Both Schaenzer and Osborne are directed to conventional SIL systems. For example, Schaenzer teaches a SIL used in combination with a slider. In contrast, the claimed invention of claims 1 and 25 tries to overcome the problems of SIL-based systems, which are detailed in the specification at page 3, lines 4-17. Tsuchiya, on the other hand, is directed to a conventional dark field imaging system, where the cover glass does not include a protuberance, so that uneven samples cannot be imaged, as the near-field cannot be approached close enough to particular features of the sample.

Accordingly, applicants respectfully submit that the claimed invention of claims 1 and 25 is patentable over the cited references.

Regarding some features of the dependent claims, applicants provide the following additional remarks.

With respect to dependent claims 6 and 7, the cited combination fails to teach or suggest a protuberance with a "marking" as claimed.

Thus, for at least these additional reasons, applicants respectfully submit the pending claims are patentable over the cited art.

New Claims 31-36

With respect to new claims 31-33, the cited combination does not teach or suggest a transducer "optically coupled to an objective of the imaging optical system via a flexible immersion." As discussed above, Schaenzer/Osborne teach SIL-based systems. Both slider/mesa structures of Schaenzer and Osborne do not provide a flexible immersion and thus it would not be likely that one of ordinary skill in the art would look to Schaenzer/Osborne to modify Tsuchiya to provide a flexible immersion coupling the objective to the transducer/protuberance. Further, Tsuchiya does not disclose the coupling of a flexible immersion to the objective, but rather the use of a shared (non-objective) lens 41 between the object and the objective. Thus, even if the three references were combined, it would not be obvious to form the same structure as applicant's claimed invention of claims 31-33.

Claim 34 incorporates features from claims 1 and 18-21, of which, claims 18-21 were indicated as containing allowable subject matter.

Claim 35 incorporates features from claims 1 and 11-12, of which, claims 11-12 were indicated as containing allowable subject matter.

Claim 36 incorporates features from claims 1 and 22-23, of which, claims 22-23 were indicated as containing allowable subject matter.

For at least these reasons, applicants respectfully submit that new claims 31-36 are patentable over the references of record.

Conclusion

If applicants have not accounted for any fees required by this Amendment, the Commissioner is hereby authorized to charge to our Deposit Account No. 19-0741. A THREE MONTH petition for an extension of time is submitted herewith. If applicants have not accounted for a required extension of time under 37 C.F.R. § 1.136, that extension is requested and the corresponding fee should be charged to our Deposit Account.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

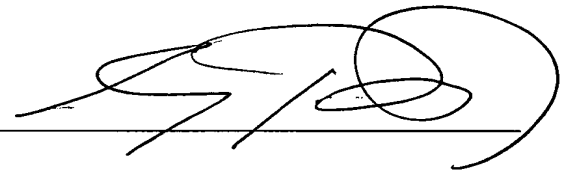
Respectfully submitted,

Date

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Version with Markings to Show Changes Made (Claims)

17. (Amended) The transducer as claimed in claim 1, further comprising:
a partially transparent coating applied to a face of the protuberance facing the
object, wherein the transparent coating is disposed [face of the protuberance facing the
object is placed] in an edge region of the protuberance.

26. (Amended) The imaging optical system of claim 25, further comprising:
a grating structure disposed on a face of the protuberance facing the object;
and
an illuminating beam defined by a light source and an illuminated field stop
having a plurality of openings, wherein an arrangement of said plurality of openings
correspond to and are imageable onto the [linear] grating structure.